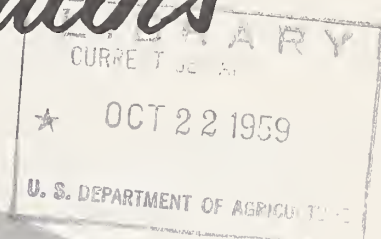


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Milk Distributors



Sales and Costs

April-June 1959

U. S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division

MILK DISTRIBUTOR'S SALES AND COSTS

April-June 1959

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: This report is the current issue of a series based upon :
: information obtained from distributors of fluid milk and :
: cream products. These distributors are subscribers to a :
: cost comparison service which furnished the Department :
: with tabular data for analysis. A uniform accounting :
: system is used, and information is given on standardized :
: forms. Data reported include: Costs and quantities of :
: raw milk and other raw materials; prices and quantities :
: of products sold; and operating costs. :
: :
: The firms selected are privately owned, and chiefly single- :
: plant firms. In these characteristics they are considered :
: to be typical. Very small firms, very large firms, national :
: chains, and producer-distributors are not included. :

SALES AND COSTS

Average net sales receipts of milk distributors were 17 cents higher per 100 pounds of milk and cream processed in the April-June quarter of 1959 than in January-March.

Total costs of milk distributors increased 14 cents per 100 pounds over the second quarter of 1958, as did sales receipts. Costs for raw milk and cream were below a year earlier; other raw material costs and operating costs were more than seasonally higher. Net margin at 44 cents per 100 pounds was the same as a year earlier.

Value of Sales

In the April-June 1959 period, milk distributors received \$11.10 per 100 pounds of milk and cream processed (table 1). This was a contra-seasonal increase of 17 cents from the previous quarter and was the highest for any second quarter in the last 3 years. The quarter-to-quarter increase was mostly due to the fact that January-March quarter was the lowest for any first quarter since 1955.

Changes in sales receipts per 100 pounds have been relatively minor during the last several years, in spite of the fact that retail prices paid by consumers have increased considerably. This is because of the steady shift from the higher priced retail (home delivery) sales to the lower priced wholesale (store and institutional) sales. An indication of the shift is the proportion of milk processed into glass bottles and

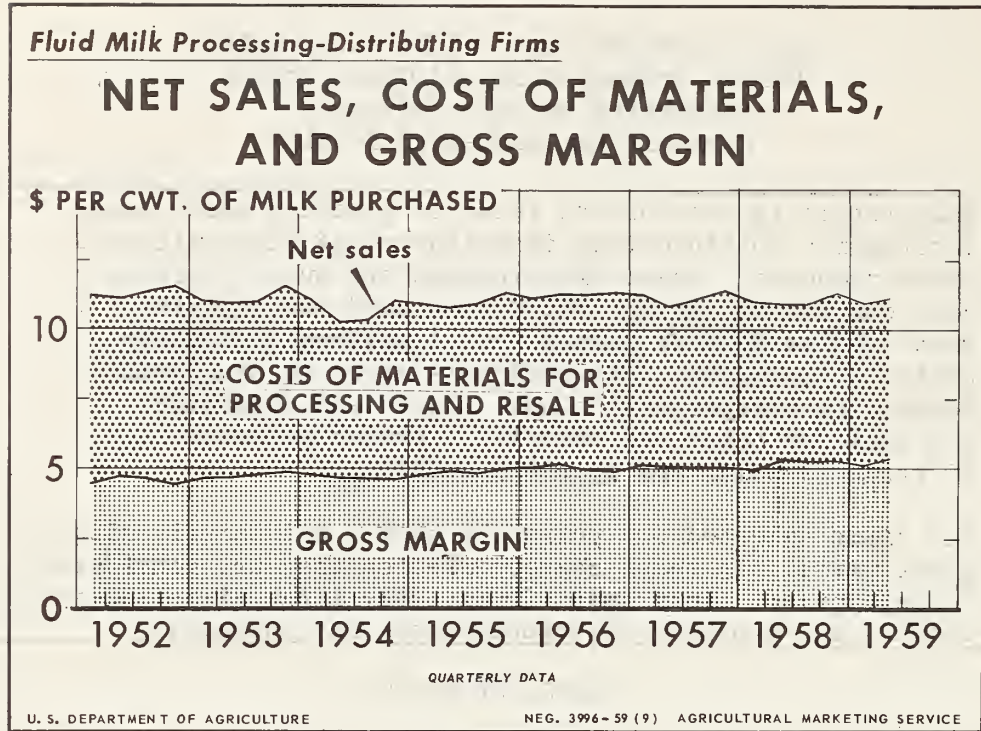


Figure 1

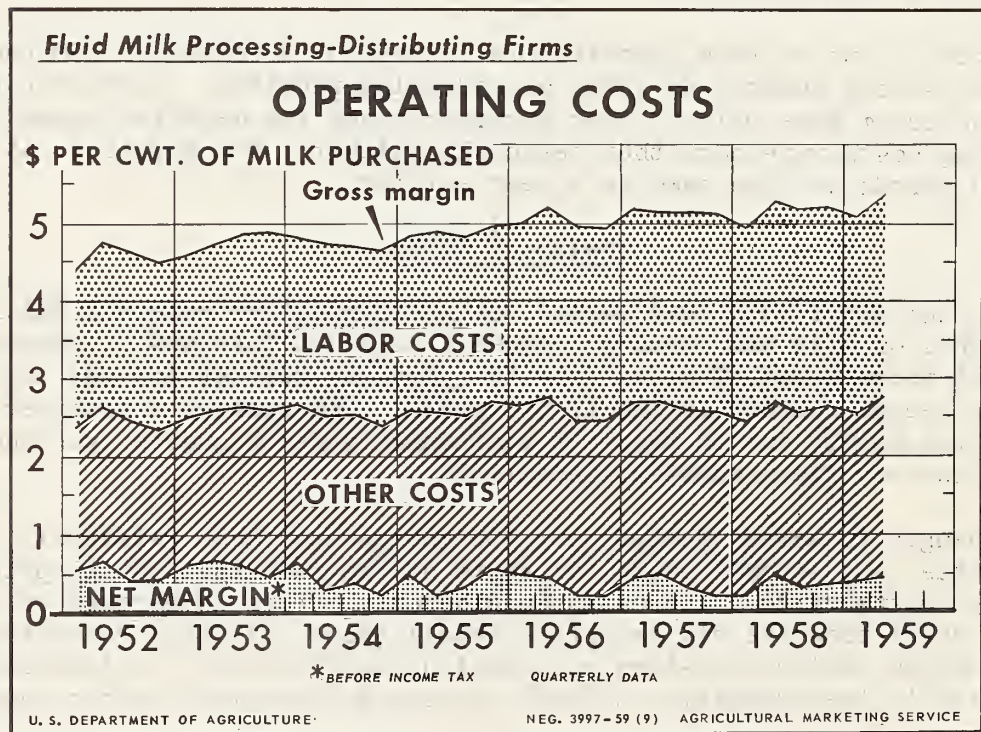


Figure 2

Table 1.--COSTS AND MARGINS FOR SELECTED DAIRY FIRMS: Per 100 pounds of milk and cream processed, for years 1952-58, and for the 5 most recent quarters

Account	Yearly average									
	1952	1953	1954	1955	1956	1957	1958	1958	1959	1959
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Net sales receipts	11.32	11.12	10.69	10.95	11.22	11.15	11.05	10.96	11.28	11.10
Cost of materials for processing and resale:										
Raw milk and cream	5.85	5.43	5.07	5.12	5.30	5.14	5.04	4.81	5.24	4.73
Other .....	.86	.90	.87	.93	.88	.87	.84	.87	.82	.98
Total	6.71	6.33	5.94	6.05	6.18	6.01	5.88	5.68	6.06	5.71
Gross margin	4.61	4.79	4.75	4.90	5.04	5.14	5.17	5.28	5.22	5.39
Operating cost:										
Salaries, wages, and commissions 1/	2.15	2.19	2.21	2.28	2.43	2.50	2.56	2.56	2.57	2.54
Containers .....	.60	.62	.65	.70	.72	.71	.70	.70	.71	.67
Operating supplies .....	.30	.32	.35	.32	.28	.29	.29	.29	.30	.29
Repairs, rent and depreciation .....	.50	.52	.57	.60	.64	.67	.68	.67	.67	.64
Taxes .....	.06	.06	.06	.06	.05	.06	.06	.06	.06	.06
Insurance .....	.02	.02	.03	.04	.04	.04	.04	.05	.04	.04
Services .....	.16	.19	.19	.18	.17	.17	.17	.17	.17	.15
Advertising .....	.15	.15	.16	.18	.19	.18	.18	.19	.19	.17
General .....	.15	.13	.13	.14	.16	.15	.16	.15	.18	.14
Total	4.09	4.20	4.35	4.50	4.68	4.77	4.84	4.84	4.89	4.71
Net margin 2/ .....	.52	.59	.40	.40	.36	.37	.33	.44	.29	.37
Firms reporting	43	51	75	83	80	80	80	80	80	80

1/ Includes State unemployment, Federal old age, workmen's compensation, and employee benefits.

2/ Net returns to owners before income taxes.

paper cartons. Of the total processed in the two types of containers, 55 percent was in paper and 45 percent was in glass during the January-March quarter of 1956. For the first quarters of subsequent years the proportions were: 57 percent paper and 43 percent glass in 1957, 60 percent paper and 40 percent glass in 1958, and 63 percent paper and 37 percent glass in 1959.

Since nearly all milk in paper cartons is sold at wholesale and most bottled milk is sold at retail, this shift to wholesale would tend to hold down the value of milk distributors net receipts, even though the selling prices of individual items were going up. The shift to store sales may be more rapid than the shift to paper containers, since in some areas milk is sold in stores in half-gallon and gallon glass bottles.

Cost of Materials for Processing and Resale

Milk distributors' cost of materials for processing and resale was \$5.71 per 100 pounds of milk and cream processed in the April-June 1959 quarter--\$0.14 below the previous quarter and \$0.66 below a year earlier. Costs of raw milk and cream were \$4.73; costs for the first and second quarters of 1959 were both at the lowest for these quarters since this series began in 1952. Costs of other raw materials--ingredients, items purchased for resale, and inventory adjustments--were up considerably.

Gross margin--net receipts less cost of materials for processing and resale--was 48.6 percent of sales in April-June 1959. This was the highest for any quarter in this series and was 5.6 percentage points above the second quarter 1952.

Operating Costs

Fluid milk distributors' operating costs per 100 pounds of milk and cream processed increased sharply in the April-June 1959 quarter. At \$4.95 they were up \$0.24 from the previous quarter and \$0.11 from the same quarter of 1958. The increase is the first change other than seasonal since mid-1957.

Of the increase of \$0.11 from last year \$0.08 was in salaries, wages, and commissions. This follows the general trend: Personnel costs have accounted for 57 percent of the increase in operating costs since 1952. Container costs were \$0.73, about the same level that has prevailed since 1955. It is probable that increasing prices for containers are being mostly offset by the processing of an increasing proportion of the total product in larger sized containers which cost less per given amount of product. Operating supplies at \$0.29 and rent, repairs, and depreciation at \$0.67 were unchanged from a year earlier. All other operating costs, in total, were \$0.62--the same as in the April-June 1958 quarter.

Net margin of fluid milk distributors--the remainder for payment of income taxes and return on investment--was \$0.44, unchanged from a year earlier.

PROCESSING COSTS 1/

Both scale of operations and degree of specialization have considerable effect on processing costs. Size of firm has little effect on general processing costs (before milk is packaged) but has substantial effect on the costs of cartoning and bottling, which are considerably lower in the larger firms. Lower costs are also a mark of the specialized firms. Lowest costs occur in the larger specialized firm and highest costs in the smaller generalized firm.

General Processing

During the period of July 1955-December 1958 general processing costs--receiving and storing raw milk, separating, pasteurizing, and homogenizing--averaged a half cent per pound (table 2). These costs varied but little among different sized firms, only from 0.49 cent per pound for large firms to 0.54 cent for small firms, or about \$1.08 for each 1,000 quarts processed. Neither the average costs for all firms nor the average costs for the individual size groups show any definite trend during the $3\frac{1}{2}$ year period.

Packaging Costs, by Size of Firm

Firms were divided into small, medium, and large categories on the bases of (1) the quantity of milk processed into paper cartons and (2) the quantity processed into glass bottles. Total costs for processing milk into paper cartons, by firms of all sizes averaged 1.89 cents per pound during the July 1955-December 1958 period (table 3). In contrast with general processing costs, total paper carton costs varied considerably with the size of firms--costs for medium size firms were 18 percent higher than for large firms and those for small firms were 28 percent higher.

As with paper carton processing costs, total glass bottle processing costs varied considerably with the size of the firm. For the $3\frac{1}{2}$ year period, the weighted average cost was 1.45 cents per pound but the range was from 1.39 cents for large firms to 2.04 cents for the small firms. Costs for medium sized firms were 11 percent higher than for large firms and those for small firms were 47 percent higher.

1/ For other details of processing costs, see MDSC-10.

Table 2.--GENERAL COSTS FOR PROCESSING MILK: By size of firm 1/
(Cents per pound)

Period	Size category <u>2/</u>			All firms reporting
	Large	Medium	Small	
1955	Cents	Cents	Cents	Cents
July-September	0.47	0.52	0.62	0.51
October-December .....	.44	.50	.52	.48
1956				
January-March .....	.48	.51	.52	.49
April-June .....	.53	.52	.57	.54
July-September .....	.46	.53	.58	.50
October-December .....	.51	.49	.49	.48
1957				
January-March .....	.52	.49	.52	.52
April-June .....	.53	.52	.55	.53
July-September .....	.55	.50	.55	.54
October-December .....	.50	.48	.50	.51
1958				
January-March .....	.47	.51	.48	.50
April-June .....	.50	.50	.61	.52
July-September .....	.46	.51	.55	.50
October-December .....	.43	.44	.50	.45
Weighted average .....	.49	.50	.54	.50

1/ Processing costs include labor for receiving and storing, separating, pasteurizing and homogenizing milk; facilities and equipment, supplies, purchased services, and taxes.

2/ Size categories are based on the total amount of milk processed in the October-December 1958 quarter: Large, over 5.7 million pounds; medium 2.5-5.7 million pounds; small, less than 2.5 million pounds.

Table 3.--COSTS FOR PROCESSING MILK IN PAPER AND GLASS: By size of firm
(Cents per pound)

Type of packaging and period	Size category <u>1/</u>			All firms reporting
	Large	Medium	Small	
Paper processing costs <u>2/</u>	Cents	Cents	Cents	Cents
1955				
July-September	1.70	2.03	2.44	1.86
October-December	1.75	2.02	2.20	1.89
1956				
January-March	1.72	2.14	2.08	1.88
April-June	1.75	2.17	2.36	1.94
July-September	1.68	2.10	2.29	1.86
October-December	1.80	2.11	2.17	1.89
1957				
January-March	1.82	1.97	2.51	1.95
April-June	1.85	2.00	2.34	1.94
July-September	1.82	1.93	2.27	1.90
October-December	1.66	2.01	2.58	1.93
1958				
January-March	1.78	1.94	2.26	1.88
April-June	1.81	2.01	2.24	1.89
July-September	1.80	1.98	2.25	1.90
October-December	1.72	1.85	2.14	1.79
Weighted average	1.71	2.02	2.29	1.89
Glass processing costs <u>3/</u>				
1955				
July-September	1.36	1.47	1.87	1.45
October-December	1.34	1.44	1.81	1.41
1956				
January-March	1.26	1.50	1.86	1.35
April-June	1.37	1.59	1.97	1.49
July-September	1.39	1.68	2.11	1.52
October-December	1.39	1.43	1.88	1.41
1957				
January-March	1.36	1.40	1.77	1.41
April-June	1.36	1.54	1.89	1.49
July-September	1.48	1.58	1.91	1.52
October-December	1.38	1.47	1.84	1.43
1958				
January-March	1.32	1.67	1.91	1.47
April-June	1.35	1.62	2.04	1.52
July-September	1.32	1.74	2.07	1.51
October-December	1.27	1.63	2.01	1.43
Weighted average	1.39	1.55	2.04	1.45

1/ Size categories in the October-December 1958 quarter: Pounds of milk processed in paper cartons; large, more than 3.3 million; medium, 1.6-3.3 million; small, less than 1.6 million. Pounds of milk processed in glass bottles; large, more than 2.4 million; medium, 0.9-2.4 million; small, less than 0.9 million. 2/ Costs of handling and storing cartons and cases, filling cartons, casing and moving to cold room plus general processing costs. 3/ Costs of handling storing and washing bottles and cases, filling bottles, casing and moving to cold room plus general processing costs.

Table 4.--COSTS FOR PROCESSING MILK IN PAPER AND GLASS: By degree of specialization
(Cents per pound)

Period	Paper processing costs 1/					
	Less than	20%-39%	40%-59%	60%-79%	80%-99%	100%
	20% paper	paper	paper	paper	paper	paper
1955	Cents	Cents	Cents	Cents	Cents	Cents
July-September	2.61	2.28	1.82	1.76	1.81	1.87
October-December	2.78	2.23	1.79	1.82	1.83	1.79
1956						
January-March	2.48	2.19	1.86	1.81	1.83	1.70
April-June	2.23	2.36	1.74	2.01	1.84	1.81
July-September	2.41	2.41	2.09	1.79	1.69	1.83
October-December	2.45	2.29	2.00	1.87	1.80	2.02
1957						
January-March	3.34	2.23	2.07	1.91	1.78	1.80
April-June	2.69	2.35	2.13	1.88	1.84	1.93
July-September	2.51	2.21	2.15	1.83	1.72	1.66
October-December	2.54	2.13	2.12	1.99	1.71	1.77
1958						
January-March	2.62	2.10	2.08	1.93	1.79	1.71
April-June	2.22	2.12	2.16	1.92	2.04	1.75
July-September	2.47	2.12	2.06	1.96	1.79	1.93
October-December	2.46	1.98	1.89	1.87	1.67	1.63
Weighted average.	2.66	2.22	1.99	1.89	1.84	1.82
Glass processing costs 2/						
	Less than	20%-39%	40%-59%	60%-79%	80%-99%	100%
	20% glass	glass	glass	glass	glass	glass
1955	Cents	Cents	Cents	Cents	Cents	Cents
July-September	1.57	1.43	1.41	1.54	1.45	1.48
October-December	1.50	1.50	1.36	1.49	1.49	1.55
1956						
January-March	1.50	1.48	1.40	1.35	1.51	1.51
April-June	1.42	1.77	1.39	1.45	1.39	1.62
July-September	1.89	1.49	1.57	1.57	1.41	1.70
October-December	1.62	1.66	1.54	1.54	1.50	1.49
1957						
January-March	1.58	1.58	1.44	1.28	1.39	1.60
April-June	1.94	1.57	1.54	1.44	1.42	1.49
July-September	1.98	1.63	1.59	1.44	1.43	1.82
October-December	1.95	1.61	1.52	1.34	1.37	1.64
1958						
January-March	2.69	1.59	1.48	1.27	1.37	1.56
April-June	3.20	1.67	1.50	1.36	1.37	1.57
July-September	2.46	1.68	1.52	1.41	1.31	1.36
October-December	2.19	1.77	1.37	1.28	1.51	1.18
Weighted average.	1.98	1.61	1.52	1.41	1.44	1.53

1/ Costs of handling and storing cartons and cases, filling cartons, casing and moving to cold room plus general processing costs.

2/ Costs of handling, storing and washing bottles and cases, filling bottles, casing and moving to cold room plus general processing costs.

Degree of Specialization

Distributors who specialize in processing milk into paper cartons have lower costs for this operation (table 4) than firms not specializing. Costs were lowest for the firms that had 100 percent paper operations-- 1.82 cents per pound. For lesser degrees of specialization, costs were: 80%-99% paper, 1 percent higher; 60%-79% paper, 4 percent higher; 40%-59% paper, 9 percent higher; 20-39% paper, 22 percent higher; less than 20% paper, 46 percent higher. The relatively high cost for the last category is partly explained by the fact that this group was made up primarily of smaller firms. However, this does not detract from the importance of specialization: The largest average amount of milk processed in paper occurred in the firms falling in the 60%-79% paper category.

Evidence of the effect of specialization on cost is not as clear for glass bottle processing as it is for paper carton processing. In glass bottle processing the lowest costs occurred in the firms that had 60%-79% of their volume in glass; the firms that were more specialized--80%-99% or 100% of their milk in glass--had higher costs, probably because they had smaller than average total volume. However, the effects of specialization are evident as the proportion in glass decreases.

The effects of specialization can be shown by direct comparison (table 5).

Table 5.--COSTS FOR PROCESSING MILK IN PAPER AND GLASS: By degree of specialization average July 1955-December 1958

(Cents per pound)							
Type of container	Specialization category						
	: Less than 20% paper	: 20%-39% paper	: 40%-59% paper	: 60%-79% paper	: 80%-99% paper	: 100% paper	
	: 100% glass	: 80%-99% glass	: 60%-79% glass	: 40%-59% glass	: 20%-39% glass	: Less than 20% glass	
	: Cents	: Cents	: Cents	: Cents	: Cents	: Cents	: Cents
Paper		2.66	2.22	1.99	1.89	1.84	1.82
Glass	1.53	1.44	1.41	1.52	1.61	1.98	

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